

REMARKS

I. Introduction

In response to the Office Action dated October 10, 2006, Applicants have amended claims 1 and 11 to more particularly point out and distinctly claim the subject matter of the invention. Care has been taken to avoid the introduction of new matter. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

II. Claim Rejections Under 35 U.S.C. § 102

Claims 1 – 3, 11, and 12 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Bruck (DE 10065305) for which the Examiner has asserted that U.S. Patent Application 2004/0157095 is an equivalent document. Applicants traverse this rejection for at least the following reasons.

Claim 1 recites, among other things, a fuel cell comprising an air purifying apparatus which comprises a first pollutant-removing means that oxidizes a pollutant in the air and a second pollutant-removing means that adsorbs and removes the pollutant, wherein the second pollutant-removing means adsorbs and removes the pollutant after the pollutant has been oxidized. According to one embodiment of the invention, air can be effectively purified under the condition of high space velocity of about 10,000 to 100,000 h⁻¹ by employing a configuration that includes a first pollutant-removing means, which oxidizes a pollutant, and a second pollutant-removing means, which adsorbs and removes the highly oxidized pollutants (see, page 11 of the specification).

Bruck appears to disclose an air treatment apparatus which includes a heat exchanger, an adsorber, and/or a catalyst. The adsorber and the catalyst together form air purification unit 40. The Examiner appears to equate catalytic coating 42 of Bruck with the first pollutant-removing means and adsorber 41 with the second pollutant-removing means. As depicted in Figure 2 of Bruck, it appears that the air first goes through the adsorber 41 and then through the catalytic coating 42.

Thus, the adsorber 41 cannot adsorb and remove oxidized pollutants, as recited in claim 1, because the air travel through the adsorber 41 *before* being processed by the catalytic coating 42, which the Examiner admits oxidizes the pollutants in the air. That is, the adsorber does not receive oxidized pollutants and therefore cannot adsorb and remove oxidized pollutants.

Claim 11 recites features similar to those described above in relation to claim 1. Accordingly, claim 11 is patentable over Bruck for at least the same reasons provided above in reference to claim 1. Claim 11 further recites that the first pollutant-removing means includes a heating unit. As recited on page 9 of the specification, it is preferable that the first pollutant-removing means includes a heating means and the catalyst be heated to 200 to 500 degrees Celsius. Furthermore, as recited on page 10 of the specification, this configuration enables sufficient oxidizing even when the concentrations of the pollutants are low. Bruck does not appear to disclose any such heating unit.

Knuth also fails to disclose such a heating unit. Knuth appears to be directed towards an air purification system used for an air filter. However, Knuth does not disclose an air purification system for a fuel cell wherein a first pollutant-removing means includes a heating unit.

Accordingly, as anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), and both Bruck and Knuth each fail to disclose at least the above described elements, it is clear that neither Bruck nor Knuth anticipates independent claims 1 and 11.

Claims 2, 3, 7, 8, 12, and 14 depend from claim 1 or 11. Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Harness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987).

Accordingly, as the independent claims are patentable for at least the reasons set forth above, it is

respectfully submitted that all dependent claims are also in condition for allowance. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

III. Conclusion

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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